

## Section 1. Registration Information

### Source Identification

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Facility Name:	Brown Road Water Treatment Plant
Parent Company #1 Name:	City of Mesa
Parent Company #2 Name:	

### Submission and Acceptance

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Submission Type:	Re-submission
Subsequent RMP Submission Reason:	5-year update (40 CFR 68.190(b)(1))
Description:	
Receipt Date:	09-Jun-2009
Postmark Date:	09-Jun-2009
Next Due Date:	09-Jun-2014
Completeness Check Date:	24-Feb-2010
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

### Facility Identification

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EPA Facility Identifier:	1000 0003 4759
Other EPA Systems Facility ID:	

### Dun and Bradstreet Numbers (DUNS)

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Facility DUNS:	
Parent Company #1 DUNS:	20141404
Parent Company #2 DUNS:	20141404

### Facility Location Address

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Street 1:	7750 E. Brown Road
Street 2:	
City:	Mesa
State:	ARIZONA
ZIP:	85207
ZIP4:	
County:	MARICOPA

### Facility Latitude and Longitude

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Latitude (decimal):	33.440000
Longitude (decimal):	-111.666306
Lat/Long Method:	Interpolation - Map
Lat/Long Description:	Unknown
Horizontal Accuracy Measure:	12
Horizontal Reference Datum Name:	North American Datum of 1927
Source Map Scale Number:	24000

## Owner or Operator

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Operator Name:	City of Mesa: City Manager's Office
Operator Phone:	(480) 644-3333

## Mailing Address

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Operator Street 1:	P.O. Box 1466
Operator Street 2:	
Operator City:	Mesa
Operator State:	ARIZONA
Operator ZIP:	85211
Operator ZIP4:	1466
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

## Name and title of person or position responsible for Part 68 (RMP) Implementation

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RMP Name of Person:	Michael Kennedy
RMP Title of Person or Position:	WTP Superintendent
RMP E-mail Address:	michael.kennedy@mesaaz.gov

## Emergency Contact

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Emergency Contact Name:	Ted Bailey
Emergency Contact Title:	WTP Operations Supervisor
Emergency Contact Phone:	(480) 644-3289
Emergency Contact 24-Hour Phone:	(480) 832-2655
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	ted.bailey@mesaaz.gov

## Other Points of Contact

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Facility or Parent Company E-mail Address:	
Facility Public Contact Phone:	(480) 644-3289
Facility or Parent Company WWW Homepage Address:	www.mesaaz.gov

## Local Emergency Planning Committee

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LEPC:	Maricopa County LEPC
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## Full Time Equivalent Employees

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Number of Full Time Employees (FTE) on Site:	14
FTE Claimed as CBI:	

## Covered By

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OSHA PSM :	Yes
EPCRA 302 :	Yes
CAA Title V:	
Air Operating Permit ID:	

## OSHA Ranking

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OSHA Star or Merit Ranking:

## Last Safety Inspection

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Last Safety Inspection (By an External Agency) Date:	01-Aug-1997
Last Safety Inspection Performed By an External Agency:	Arizona OSHA

## Predictive Filing

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Did this RMP involve predictive filing?:

## Preparer Information

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Preparer Name:	Black & Veatch Corporation
Preparer Phone:	(913) 458-2000
Preparer Street 1:	11401 Lamar Avenue
Preparer Street 2:	
Preparer City:	Overland Park
Preparer State:	KANSAS
Preparer ZIP:	66211
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

## Confidential Business Information (CBI)

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CBI Claimed:  
Substantiation Provided:  
Unsanitized RMP Provided:

## Reportable Accidents

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Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidents reported for this RMP.
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## Process Chemicals

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Process ID:	1000005119
Description:	Chlorination System
Process Chemical ID:	1000005782
Program Level:	Program Level 3 process
Chemical Name:	Chlorine
CAS Number:	7782-50-5
Quantity (lbs):	28000
CBI Claimed:	
Flammable/Toxic:	Toxic

## Process NAICS

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Process ID:	1000005119
Process NAICS ID:	1000005317
Program Level:	Program Level 3 process
NAICS Code:	22131
NAICS Description:	Water Supply and Irrigation Systems

## Section 2. Toxics: Worst Case

Toxic Worst ID: 1000004136

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Percent Weight:

Physical State:

Model Used:

Release Duration (mins):

Wind Speed (m/sec):

Atmospheric Stability Class:

Topography:

Gas liquified by pressure

EPA's RMP\*Comp(TM)

10

1.5

F

Urban

### Passive Mitigation Considered

Dikes:

Enclosures:

Berms:

Drains:

Sumps:

Other Type:

## Section 3. Toxics: Alternative Release

Toxic Alter ID: 1000004630

Percent Weight:

Physical State:

Model Used:

Wind Speed (m/sec):

Atmospheric Stability Class:

Topography:

Gas liquified by pressure

EPA's RMP\*Comp(TM)

3.0

D

Urban

### Passive Mitigation Considered

Dikes:

Enclosures:

Berms:

Drains:

Sumps:

Other Type:

### Active Mitigation Considered

Sprinkler System:

Deluge System:

Water Curtain:

Neutralization:

Excess Flow Valve:

Flares:

Scrubbers:

Emergency Shutdown:

Other Type:

Yes

Halogen valves

## **Section 4. Flammables: Worst Case**

No records found.

## **Section 5. Flammables: Alternative Release**

No records found.



## Section 6. Accident History

No records found.

## Section 7. Program Level 3

### Description

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The chlorination system utilizes 1-ton containers to provide disinfection to treated water prior to distribution.

### Program Level 3 Prevention Program Chemicals

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Prevention Program Chemical ID:	1000004421
Chemical Name:	Chlorine
Flammable/Toxic:	Toxic
CAS Number:	7782-50-5

Prevention Program Level 3 ID:	1000003738
NAICS Code:	22131

### Safety Information

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Safety Review Date (The date on which the safety information was last reviewed or revised):	02-Nov-2006
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### Process Hazard Analysis (PHA)

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PHA Completion Date (Date of last PHA or PHA update):	12-Aug-2008
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### The Technique Used

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What If:	Yes
Checklist:	Yes
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	31-Jan-2009

### Major Hazards Identified

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Toxic Release:	Yes
Fire:	
Explosion:	
Runaway Reaction:	
Polymerization:	
Overpressurization:	
Corrosion:	Yes
Overfilling:	
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	
Earthquake:	
Floods (Flood Plain):	

Tornado:

Hurricanes:

Other Major Hazard Identified:

## Process Controls in Use

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Vents:

Relief Valves: Yes

Check Valves: Yes

Scrubbers:

Flares:

Manual Shutoffs: Yes

Automatic Shutoffs: Yes

Interlocks:

Alarms and Procedures: Yes

Keyed Bypass:

Emergency Air Supply:

Emergency Power: Yes

Backup Pump:

Grounding Equipment:

Inhibitor Addition:

Rupture Disks: Yes

Excess Flow Device:

Quench System:

Purge System:

None:

Other Process Control in Use:

## Mitigation Systems in Use

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Sprinkler System: Yes

Dikes:

Fire Walls: Yes

Blast Walls:

Deluge System:

Water Curtain:

Enclosure: Yes

Neutralization: Yes

None:

Other Mitigation System in Use:

## Monitoring/Detection Systems in Use

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Process Area Detectors: Yes

Perimeter Monitors:

None:

Other Monitoring/Detection System in Use:

## Changes Since Last PHA Update

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Reduction in Chemical Inventory: Yes

Increase in Chemical Inventory:

Change Process Parameters: Yes

Installation of Process Controls:

Installation of Process Detection Systems:

Installation of Perimeter Monitoring Systems:  
Installation of Mitigation Systems:  
None Recommended:  
None:  
Other Changes Since Last PHA or PHA Update:

## Review of Operating Procedures

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Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 02-Nov-2006

## Training

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Training Revision Date (The date of the most recent review or revision of training programs): 02-Nov-2006

## The Type of Training Provided

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Classroom: Yes  
On the Job: Yes  
Other Training:

## The Type of Competency Testing Used

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Written Tests:  
Oral Tests:  
Demonstration:  
Observation: Yes  
Other Type of Competency Testing Used:

## Maintenance

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Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures): 03-Mar-2005

Equipment Inspection Date (The date of the most recent equipment inspection or test): 19-Apr-2006

Equipment Tested (Equipment most recently inspected or tested): Entire chlorination system

## Management of Change

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Change Management Date (The date of the most recent change that triggered management of change procedures): 12-Apr-2006

Change Management Revision Date (The date of the most recent review or revision of management of change procedures): 12-Apr-2006

## Pre-Startup Review

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Pre-Startup Review Date (The date of the most recent pre-startup review): 03-Mar-2005

## Compliance Audits

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Compliance Audit Date (The date of the most recent compliance audit): 25-Apr-2007

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit): 31-Dec-2008

## Incident Investigation

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Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

## Employee Participation Plans

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Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans): 02-Nov-2006

## Hot Work Permit Procedures

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Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures): 07-Jun-1999

## Contractor Safety Procedures

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Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures): 01-Apr-2004

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance): 03-Mar-2005

## Confidential Business Information

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CBI Claimed:

## **Section 8. Program Level 2**

## Section 9. Emergency Response

### Written Emergency Response (ER) Plan

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Community Plan (Is facility included in written community emergency response plan?): Yes

Facility Plan (Does facility have its own written emergency response plan?):

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Healthcare (Does facility's ER plan include information on emergency health care?):

### Emergency Response Review

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Review Date (Date of most recent review or update of facility's ER plan):

### Emergency Response Training

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Training Date (Date of most recent review or update of facility's employees):

### Local Agency

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Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated): Mesa Fire Department

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated): (000) 000-0911

### Subject to

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OSHA Regulations at 29 CFR 1910.38: Yes

OSHA Regulations at 29 CFR 1910.120: Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws:

Other (Specify):

## Executive Summary

### Executive Summary

The CAP Water Treatment Plant is one of the many facilities owned and operated by the City of Mesa. CAP WTP has prepared a Risk Management Plan (RMP) in accordance with the EPA and OSHA regulatory requirements. A brief overview of the RMP and the associated policies at CAP WTP is described below.

### Prevention and Response Policies

The City takes an active role in preventing accidental releases by ensuring that its employees are properly trained in the safe operation of covered processes and the safe handling of treatment chemicals. The City has also established and maintains procedures for emergency notification and response. These are reviewed with employees on a periodic basis and revised to accommodate changes in staffing when they occur. To increase employee safety and awareness, the City:

- . Maintains up-to-date safety information and operating procedures,
- . Performs regular preventative maintenance,
- . Provides periodic refresher training on safe handling of chemicals, and
- . Conducts monthly safety drills.

### Facility Description and Regulated Substances

CAP Water Treatment Plant stores potable water for delivery to the distribution system; it has facilities for maintaining chlorine residual at the appropriate levels.

The regulated substance handled at CAP Water Treatment Plant is chlorine and is stored in 1-ton containers.

### Release Scenarios

Worst-case and alternative release scenarios have been determined after careful review of the regulation and consideration of the storage vessel configuration at the facility. The release scenarios have been performed in accordance with the regulation.

### Prevention Steps for Chlorine

The prevention program fulfills the requirements of the OSHA Process Safety Management (PSM) rule and the EPA RMP rule, and includes

- . Formal and on-the-job training,
- . Written operating procedures, and
- . A process equipment preventive maintenance program.

The primary means of mitigating an accidental chlorine release at CAP Water Treatment Plant is the installation of a chemical scrubber for the chlorine building. The scrubber is maintained on a regular basis to ensure proper operation if needed during a chlorine release.

### Accident History

There has been no accidental release of the covered chemical in the past five years.

### Emergency Response Program

This facility has established and maintains an emergency response program that is coordinated with local response agencies. The goals of the program are to protect on-site employees from the hazardous effects of the releases and to minimize the effects of releases on the general public. The program is routinely reviewed and updated to reflect personnel and regulatory changes.

### Planned Changes for Improved Safety

Ideas for changes to improve safety are actively sought from employees. Employee meetings that focus on safety issues are held regularly at the facility. Employees are encouraged and trained to recognize hazards and present ideas to eliminate them or to minimize the potential consequences of those hazards.

During the development of this RMP document, a process hazard analysis of the chlorine system was conducted with key employees to fulfill the prevention program requirements. During these sessions, recommendations were made for the purpose of improving safety and preventing accidental chemical releases.

Each recommendation will be or has been considered for implementation. Though not all recommendations may be implemented, the exercise provided all affected employees with a heightened awareness of safety issues related to the covered processes.